

“An die Freude

...
Freude trinken alle Wesen
An den Brüsten der Natur;
Alle Guten, alle Bösen
Folgen ihrer Rosenspur
...”

Friedrich Schiller (1759-1805)

Research Article

<http://zoobank.org/urn:lsid:zoobank.org:pub:91255BBD-3A61-4C28-A8F9-7576A9513D49>

Illustrative notes on the entomo-fauna and the flora of Cudi Mountain (Şırnak Prov., SE Turkey)

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Abstract: Illustrative notes on the entomo-fauna and the flora of Cudi Mountain (Şırnak Prov., SE Turkey). *Cesa News* 123: 1-22, 69 figs.

In this paper, preliminary illustrative notes on the flora and entomo-fauna of Cudi Mt. (Şırnak Province, SE Turkey). These results are based upon the short excursions realized by the authors in the spring of 2011. Totally 85 pterygot species of 7 orders (*Lepidoptera*, *Odonata*, *Hemiptera*, *Homoptera*, *Diptera*, *Coleoptera* and *Hymenoptera*) are listed with distributional information. Several species are new to Şırnak provincial fauna. Male genitalia and tympanal organ of *Synaphe uxorialis* (*Pyralidae*) are illustrated for the first time.

Key words: Flora, entomofauna, Şırnak, Cudi, Turkey.

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Cudi is one of the most interesting mountain, located in SE Turkey and almost completely unexplored entomo-faunistically. The authors could realize two short daily visits to the northern slopes of this mountain, the vicinity of Cevizdüzü (850-900m) in the spring of 2011 (**Figs. 1-3**). During the last visit, an expensive photo apparatus of the authors was stolen from their car. They had no further opportunity to go there; due to almost incessant battles against terrorist groups.

The present study reflects the preliminary field observations of the authors on the flora (**Figs. 1-50**), and the entomo-fauna of the Mountain Cudi (**Figs. 51-69**) to some degree.

In the mountain, the following plant species are recorded: *Acer negundo* (Aceraceae) (**Fig. 4**), *Quercus* sp. (Fagaceae) (**Fig. 5**), *Amygdalus* sp. (Rosaceae) (**Fig. 6**), *Amygdalus arabicum* (Rosaceae) (**Fig. 7**), *Cerasus* sp. (Rosaceae) (**Fig. 8**), *Tamarix* sp. (Tamaricaceae) (**Fig. 9**), *Crataegus monogyna* (Rosaceae) (**Fig. 10**), *Crataegus* sp. (Rosaceae) (**Fig. 11**), *Rosa canina* (Rosaceae) (**Fig. 67**), *Ziziphora capitata* (Lamiaceae) (**Figs. 12, 13**), *Salvia pocolata* (Lamiaceae) (**Fig. 14**), *Salvia* sp. (Lamiaceae) (**Fig. 15**), *Salvia multicaulis* (Lamiaceae) (**Fig. 16**), *Salvia* sp. (Lamiaceae) (**Fig. 17**), *Salvia* sp. (Lamiaceae) (**Fig. 18**), *Alkanna orientalis* (Boraginaceae) (**Fig. 20**), *Onosma albo-roseum* (Boraginaceae) (**Fig. 21**), *Aethionema* sp. (Brassicaceae) (**Fig. 23**), *Matthiola* sp. (Brassicaceae) (**Fig. 24**), *Alyssum* sp. (Brassicaceae) (**Fig. 25**), *Vaccaria pyramidata* (Caryophyllaceae) (**Fig. 26**), *Campanula stricta* (Campanulaceae) (**Fig. 27**), *Campanula* sp. (Campanulaceae) (**Fig. 28**), *Scabiosa* sp. (Dipsacaceae) (**Fig. 29**), *Ranunculus asiaticus* (Ranunculaceae) (**Fig. 30**), *Ixiolirion tataricum* (Amaryllidaceae) (**Fig. 33**), *Gladiolus* sp. (Iridaceae) (**Fig. 34**), *Hypericum perforatum* (Hypericaceae) (**Fig. 35**), *Papaver bracteatum* (Papaveraceae) (**Fig. 36**), *Hypecoum* sp. (Papaveraceae) (**Fig. 37**), *Aristolochia bottae* (Aristolochiaceae) (**Fig. 38**), *Astragalus* sp. (Fabaceae) (**Fig. 39**), *Astragalus halicacabus* (Fabaceae) (**Figs. 40, 41**), *Scandix iberica* (Apiaceae) (**Fig. 49**), *Trigonella* sp. (Fabaceae) (**Fig. 50**), *Gundelia tournefortii* (Asteraceae) (**Fig. 43**), *Tragopogon* sp. (Asteraceae) (**Fig. 44**), *Anthemis* sp. (Asteraceae) (**Figs. 45, 61**), *Centaurea* sp. (Asteraceae) (**Fig. 46**), *Ornithogalum narbonense* (Liliaceae) (**Fig. 47**), *Dactylis glomerata* (Poaceae) (**Fig. 48**). Several unidentified plant species are also illustrated here (**Figs. 19, 22, 31, 32, 42**). All these species mentioned above are usually larval food-plants or nectar plants of the Lepidoptera.

All the photographs including the genitalic dissections of the Lepidoptera belong to the first author.



Fig. 1 – General aspect of the NE slopes of Cudi Mt. (Şırnak Prov., SE Turkey), 8 5 2011, M. Kemal (Cesa)



Fig. 2 – Spring aspect at the vicinity of Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Fig. 3 – Spring aspect at the vicinity of Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 4, 5 – Left: *Acer negundo* (Aceraceae), right: *Quercus* sp. (Fagaceae) from Cevizdüzü, NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 6, 7 – Left: *Amygdalus* sp. right: *Amygdalus arabicum* (Rosaceae) from Cevizdüzü, NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



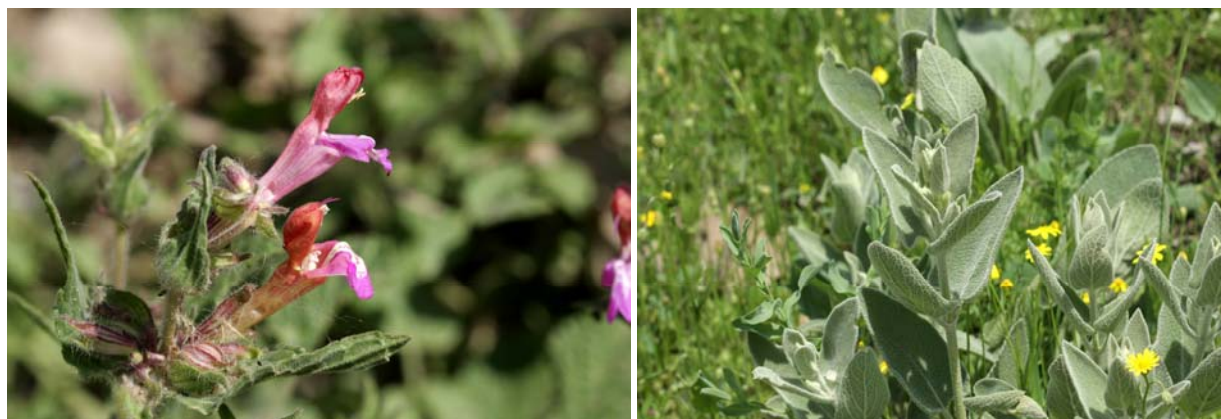
Figs. 8, 9 – Left: *Cerasus* sp. (Rosaceae), right: *Tamarix* sp. (Tamaricaceae) from Cevizdüzü, NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 10, 11 – Left: *Crataegus monogyna* (Rosaceae), right: *Crataegus* sp. from Cevizdüzü, NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 12, 13 – *Ziziphora capitata* (Lamiaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 14, 15 – Left: *Salvia poculata*; right: *Salvia* sp. (Lamiaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Fig. 16 – *Salvia multicaulis* (Lamiaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 17, 18 – Left: *Salvia* sp. (Lamiaceae); right: *Salvia* sp. from Cevizdüzü, Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 19, 20 – Left: Flower of a species. (Boraginaceae); right: *Alkanna orientalis* (Boraginaceae) from Cevizdüzü, Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 21, 22 – Left: Flower of *Onosma albo-roseum* (Boraginaceae); right: Flower of *Onosma* sp. (Boraginaceae) from Cevizdüzü, Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 23, 24 – Left: *Aethionema* sp. (Brassicaceae); right: Flower of *Matthiola* sp. (Brassicaceae) from Cevizdüzü, Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 25, 26 – Left: *Alyssum* sp. (Brassicaceae); right: Flowers of *Vaccaria pyramidata* (Caryophyllaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 27, 28 – Left: *Campanula stricta*; right: *Campanula* sp. (Campanulaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 29, 30 – Left: *Scabiosa* sp. (Dipsacaceae); right: *Ranunculus asiaticus* (Ranunculaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 31, 32 – A species of the family *Rubiaceae* from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 33, 34 – Left: *Ixiolirion tataricum* (Amaryllidaceae); right: *Gladiolus* sp. (Iridaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 35, 36 – Left: *Hypericum perforatum* (Hypericaceae); right: *Papaver bracteatum* (Papaveraceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 37, 38 – Left: *Hyecoum* sp. (Papaveraceae); right: *Aristolochia bottae* (Aristolochiaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 39, 40 – Left: *Astragalus* sp. (Fabaceae); right: *Astragalus halicacabus* (Fabaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 41, 42 – Left: *Astragalus halicacabus* (fruits) (Fabaceae); right: *Astragalus* sp. (Fabaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 43, 44 – Left: *Gundelia tournefortii* (Asteraceae); right: *Tragopogon* sp. (Asteraceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 45, 46 – Left: *Anthemis* sp. (Asteraceae); right: *Centaurea* sp. (Asteraceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 47, 48 – Left: *Ornithogalum narbonense* (Liliaceae); right: *Dactylis glomerata* (Poaceae) from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)



Figs. 49, 50 – Left: *Scandix iberica* (Apiaceae); right: *Trigonella* sp. (Fabaceae). Both from Cevizdüzü; NE slopes of Cudi Mt. 8 5 2011, M. Kemal (Cesa)

The list of the Pterygota species

During the visits to Cudi Mountain, totally 85 pterygot species were observed or collected. They are listed below, together with the distributional information in Turkey.

Lepidoptera

Butterflies

In this preliminary list, 27 species of butterflies are reported from the lower slopes of Cudi Mountain. These species were also evaluated by Güngen (2012).

The provincial codes, used below, are explained in the footnote.²

Argynnidae

- 1) *Argynnis (s.str.) paphia* (Linnaeus, 1758) Provinces of Turkey (in codes): 01 02 05 06 07 08 09 10 11 13 14 16 17 24 25 29 30 31 32 33 34 35 36 37 39 41 42 43 46 48 52 53 55 60 61 62 65 67 73 74 75 76 77 78 80 81
- 2) *Limenitis (Azuritis) reducta* Staudinger, 1901 Provinces of Turkey (in codes): 01 02 03 05 06 07 08 09 10 11 13 14 15 16 17 18 20 21 22 23 24 25 26 27 29 30 31 32 33 34 35 36 37 39 42 43 44 45 46 48 49 50 51 52 53 55 56 58 59 60 62 65 66 67 71 72 73 75 76 77 78
- 3) *Vanessa (Cynthia) cardui* (Linnaeus, 1758) Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 65 66 67 68 69 70 71 72 73 74 75 76 78 80 81

Hesperiidae

- 4) *Muschampia poggei* (Lederer, 1858) Provinces of Turkey (in codes): 01 07 12 13 21 23 24 25 27 30 33 42 44 46 47 49 56 58 62 63 65 70 72 73
- 5) *Muschampia nomas* (Lederer, 1855) Provinces of Turkey (in codes): 01 03 05 06 07 12 13 21 23 27 31 32 33 38 42 44 46 47 49 50 51 58 60 62 63 70 72 73. This species was also reported by Güngen (2012) (Fig. 51).



Fig. 51 – *Muschampia nomas* (Hesperiidae), Cudi Mt., Cevizdüzü 900m, 24 5 2011, M Kemal (Cesa)

² 01 Adana, 02 Adıyaman, 03 Afyon, 04 Ağrı, 05 Amasya, 06 Ankara, 07 Antalya, 08 Artvin, 09 Aydın, 10 Bahkesir, 11 Bilecik, 12 Bingöl, 13 Bitlis, 14 Bolu, 15 Burdur, 16 Bursa, 17 Çanakkale, 18 Çankırı, 19 Çorum, 20 Denizli, 21 Diyarbakır, 22 Edirne, 23 Elazığ, 24 Erzincan, 25 Erzurum, 26 Eskişehir, 27 Gaziantep, 28 Giresun, 29 Gümüşhane, 30 Hakkari, 31 Hatay, 32 Isparta, 33 İçel, 34 İstanbul, 35 İzmir, 36 Kars, 37 Kastamonu, 38 Kayseri, 39 Kırklareli, 40 Kırşehir, 41 Kocaeli, 42 Konya, 43 Kütahya, 44 Malatya, 45 Manisa, 46 Kahramanmaraş, 47 Mardin, 48 Muğla, 49 Muş, 50 Nevşehir, 51 Niğde, 52 Ordu, 53 Rize, 54 Sakarya, 55 Samsun, 56 Siirt, 57 Sinop, 58 Sivas, 59 Tekirdağ, 60 Tokat, 61 Trabzon, 62 Tunceli, 63 Şanlıurfa, 64 Uşak, 65 Van, 66 Yozgat, 67 Zonguldak, 68 Aksaray, 69 Bayburt, 70 Karaman, 71 Kırkkale, 72 Batman, 73 Şırnak, 74 Bartın, 75 Ardahan, 76 Iğdır, 77 Yalova, 78 Karabük, 79 Kilis, 80 Osmaniye, 81 Düzce.

- 6) ***Thymelicus novus* (Reverdin,1916)** Provinces of Turkey (in codes): 04 05 13 21 23 25 30 46 47 56 62 65 73
- 7) ***Thymelicus sylvestris* (Poda,1761)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 42 43 44 45 46 47 48 49 50 51 56 58 60 61 62 63 64 65 66 67 69 70 71 72 73 74 75 76 78 81

Libytheidae

- 8) ***Libythea (s.str.) celtis* (Laicharting,1782)** Provinces of Turkey (in codes): 01 03 05 06 07 08 09 10 11 13 14 16 17 20 21 23 25 26 27 29 30 31 32 33 34 35 37 38 41 42 43 46 48 52 56 58 60 62 65 66 71 73 76

Lycaenidae

- 9) ***Glaucopsyche (s.str.) alexis* (Poda,1761)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 11 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 41 42 43 44 45 46 47 48 49 50 51 52 56 58 60 61 62 65 66 68 69 70 71 73 74 76 80
- 10) ***Lampides boeticus* (Linnaeus,1767)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 12 13 14 15 16 17 20 21 23 24 25 26 27 29 30 31 32 33 34 35 36 37 39 40 42 44 45 46 47 48 49 50 51 52 53 56 58 60 62 63 64 65 70 71 72 73 76
- 11) ***Lycaena (s.str.) phlaeas* (Linnaeus,1761)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 41 42 44 45 46 47 48 49 50 51 52 53 54 55 56 58 59 60 61 62 63 65 66 68 69 71 72 73 74 76 78 80 81
- 12) ***Polyommatus (s.str. (Cyaniris)) antiochenus* (Lederer,1861)** Provinces of Turkey (in codes): 01 13 21 27 31 33 46 49 56 65 73 80
- 13) ***Polyommatus (s.str.) icarus* (Rottemburg,1775)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 75 76 78 80 81
- 14) ***Satyrrium (Nordmannia) abdominalis* (Gerhard,[1850])** Provinces of Turkey (in codes): 02 05 06 07 08 12 13 17 18 19 21 23 24 25 27 29 30 31 32 33 35 36 38 42 44 46 47 49 50 51 52 56 58 60 62 63 65 66 69 70 71 72 73 76 80

Pieridae

- 15) ***Colias (Eriocolias) crocea* (Fourcroy,1785)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 65 66 68 69 70 71 72 73 74 75 76 77 78 79 80 81
- 16) ***Pieris (Artogeia) mannii* (Mayer,1851)** Provinces of Turkey (in codes): 01 02 03 06 07 08 10 11 13 14 17 18 21 23 24 25 26 28 29 30 31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50 51 53 56 61 62 65 67 69 73 74 75 76 78 80
- 17) ***Pieris (Artogeia) persis* Verity,1922** Provinces of Turkey (in codes): 13 21 30 44 49 56 65 73 76
- 18) ***Pieris (Artogeia) pseudorapae* Verity,1908** Provinces of Turkey (in codes): 01 03 04 05 06 07 08 10 11 12 13 14 16 17 18 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 41 42 43 44 45 46 47 48 49 50 51 52 53 54 56 58 59 60 61 62 63 65 66 67 68 71 73 74 75 76 77 78 80 81
- 19) ***Pieris (Artogeia) rapae* (Linnaeus,1758)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 58 59 60 61 62 63 64 65 66 68 69 70 71 73 74 75 76 77 78 79 80
- 20) ***Pontia edusa* (Fabricius,1777)** Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 38 39 40 41 42 43 44 46 47 48 49 50 51 52 53 54 55 56 58 59 60 61 62 63 65 66 67 68 69 70 71 73 74 75 76 77 78 79 80 81

Satyridae

- 21) ***Coenonympha (s.str.) saadi* (Kollar,[1849])** Provinces of Turkey (in codes): 02 12 13 21 23 25 27 30 44 46 47 56 58 62 63 65 72 73 76

- 22) *Hipparchia (s.str.) syriaca* (Staudinger,1871) Provinces of Turkey (in codes):** 01 03 05 06 07 08 09 10 11 12 13 14 15 16 17 19 20 21 22 23 24 25 26 27 29 30 31 32 33 34 35 36 37 38 39 42 43 44 46 47 48 51 52 55 58 60 62 64 65 66 68 71 72 73 74 75 76 77 78 80
- 23) *Hyponephele (s.str.) lupina* (Costa,[1836]) Provinces of Turkey (in codes):** 01 02 03 04 05 06 07 08 09 10 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 29 30 31 32 33 34 35 36 37 38 39 40 42 43 44 45 46 47 48 49 50 51 52 55 56 58 60 62 63 64 65 66 67 69 70 71 72 73 76 78 80
- 24) *Kirinia (Melike) roxelana* (Cramer,[1777]) Provinces of Turkey (in codes):** 01 02 03 05 06 07 08 09 10 11 13 14 15 16 17 19 20 21 22 23 25 26 27 29 30 31 32 33 34 35 38 39 42 43 44 45 46 47 48 49 51 55 56 58 59 60 62 65 66 71 72 73 78 80
- 25) *Maniola (Telmessiola) telmessia* (Zeller,1847) Provinces of Turkey (in codes):** 01 02 03 07 09 10 12 13 15 17 20 21 23 27 30 31 32 33 35 42 44 45 46 47 48 51 56 62 63 65 70 72 73 80
- 26) *Pararge aegeria* (Linnaeus,1758) Provinces of Turkey (in codes):** 01 05 06 07 08 09 11 13 14 15 16 17 18 20 21 25 26 27 28 29 30 31 32 33 34 35 38 39 41 42 44 46 47 48 52 53 55 56 58 60 61 67 73 74 75 77 80 81
- 27) *Pseudochazara (Achazara) telephassa* (Geyer,[1827]) Provinces of Turkey (in codes):** 01 02 12 21 23 27 30 31 36 44 46 47 50 56 62 63 72 73 76 80

Moths

In this preliminary list, 25 species of 11 families are listed below. The genitaliae, which are necessary for the identifications are prepared and photographed by the first author.

Ethmiidae

- 28) *Ethmia tripunctella* (Staudinger,1879) Provinces of Turkey (in codes):** 05 44 46 65 71 73. Material studied: 1♂ (wingspan: 21mm). SE Turkey, Şırnak Prov., Cudi Mt. Cevizdüzü 900m, 24 5 2011, M.Kemal, A.Koçak & A.Güngen leg. (coll. Cesa). This species is new to Şırnak fauna (**Fig. 52**).



Fig. 52 – *Ethmia tripunctella* (Ethmiidae). Upperside of male. SE Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa)

Gelechiidae

- 29) *Metzneria aprilella* (Herrich-Schäffer,[1854]) Provinces of Turkey (in codes):** 05 06 16 33 42 46 73

Geometridae

- 30) *Camptogramma bilineatum* (Linnaeus,1758) Provinces of Turkey (in codes):** 01 05 06 10 13 14 16 17 18 21 22 23 28 30 33 34 35 36 38 39 42 44 45 46 48 52 56 57 59 60 65 73 80
- 31) *Nychiodes* sp. Material studied:** 1♂. SE Turkey, Şırnak Prov., Cudi Mt. Cevizdüzü 900m, 24 5 2011, M.Kemal, A.Koçak & A.Güngen leg. (coll. Cesa).
- 32) *Scopula transcaspica* (L.B.Prout,1935) Provinces of Turkey (in codes):** 23 24 29 30 56 58 63 71 73 (**Figs. 53, 54**). Material studied: 1♀ (wingspan: 25 mm). SE Turkey, Şırnak Prov., Cudi Mt.

Cevizdüzü 900m, 24 5 2011, M.Kemal, A.Koçak & A.Güngen leg., GP2307 (coll. Cesa). Note: Especially the shape of the sterigma (**Fig. 54**) distinguishes this species from *Scopula submutata* and *Scopula vigilata*.

Lasiocampidae

- 33)** *Lasiocampa grandis* (Rogenhofer,1891) Provinces of Turkey (in codes): 01 06 07 11 12 13 14 19 34 41 42 44 46 50 56 62 73
34) *Polymona lapidicola* (Herrich-Schäffer,[1852]) Provinces of Turkey (in codes): 01 05 06 07 14 19 21 23 30 33 35 36 42 44 46 47 48 50 56 63 65 71 73

Noctuidae

- 35)** *Agrotis (Crassagrotis) bigramma* (Esper,[1790]) Provinces of Turkey (in codes): 01 03 05 06 07 08 13 14 18 21 25 33 36 42 46 50 56 58 59 61 62 63 65 70 73 75
36) *Catocala (s.str.) nymphagoga* (Esper,[1787]) Provinces of Turkey (in codes): 01 05 06 07 11 12 16 17 30 33 35 39 44 45 48 50 56 62 65 73
37) *Catocala (s.str.) promissa* ([Denis & Schiffermüller],1775) Provinces of Turkey (in codes): 06 08 09 16 17 39 56 73 75
38) *Catocala (s.str.) puerpera* (Giorna,1791) Provinces of Turkey (in codes): 01 05 06 08 16 18 19 25 33 42 50 51 58 65 73 76
39) *Drasteria cailino* (Lefèbvre,1827) Provinces of Turkey (in codes): 01 03 04 05 06 08 13 14 18 21 24 25 29 30 33 42 44 45 46 50 51 56 58 60 62 65 66 69 73
40) *Dysgonia algira* (Linnaeus,1767) Provinces of Turkey (in codes): 01 05 07 08 10 13 16 17 18 21 22 28 30 31 33 34 35 39 40 42 44 45 48 50 52 56 61 62 63 65 73
41) *Euchalcia dorsiflava* (Standfuss,1892) Provinces of Turkey (in codes): 13 21 30 31 38 47 49 56 58 65 73. Material studied: 1♀. SE Turkey, Şırnak Prov., Cudi Mt. Cevizdüzü 900m, 24 5 2011, M.Kemal, A.Koçak & A.Güngen leg. (coll. Cesa). This species is new to Şırnak fauna!
42) *Grammodes stolidia* (Fabricius,1775) Provinces of Turkey (in codes): 01 05 06 07 08 09 16 18 33 35 36 39 44 56 62 63 65 73 76
43) *Heliothis peltigera* ([Denis & Schiffermüller],1775) Provinces of Turkey (in codes): 01 05 06 07 08 09 13 16 18 20 21 24 25 27 30 31 33 35 36 38 42 44 45 46 50 51 56 58 63 65 66 73 75 80

Oecophoridae

- 44)** *Pleurota* sp. Provinces of Turkey (in codes): 05 06 10 13 16 21 31 40 42 44 46 51 56 65 73 75.

Pterophoridae

Three species are recorded from Cudi Mt. They will be separately studied by the authors.



Fig. 53 – *Scopula transcaspica* (Geometridae). Upperside of female. SE Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa). For the genitalia see below.



Fig. 54 – *Scopula transcaspica* (Geometridae). Both sides of the female genitalia (GP2307). SE Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa).

Pyralidae

- 45) *Myelois (s.str.) circumvoluta* (Fourcroy,1785) Provinces of Turkey (in codes): 01 06 13 17 21 31 33 36 49 65 71 73 80**
46) *Nomophila noctuella* ([Denis & Schiffermüller],1775) Provinces of Turkey (in codes): 01 05 06 08 11 13 14 16 17 21 30 31 32 33 34 35 37 38 39 44 46 48 49 55 56 58 60 63 65 71 73 76 80
47) *Phlyctaenomorpha sinuosalis* (Le Cerf,[1910]) Provinces of Turkey (in codes): 07 30 56 65 73
48) *Pyrausta virginalis* Duponchel,1832 Provinces of Turkey (in codes): 01 05 06 13 16 30 31 32 38 42 44 58 65 71 73 76 80
49) *Synaphe uxorialis* (Lederer,1858) Provinces of Turkey (in codes): 05 21 46 56 73. Material studied: 5♂ (wingspan: 35 mm). SE Turkey, Şırnak Prov., Cudi Mt. Cevizdüzü 900m, 21 5 2008, A.Güngen leg. (coll. Cesa). This species is new to Şırnak fauna! The male genitalia and its tympanal organ are illustrated here for the first time (Figs. 55-57**).
 Other 8 species of the phycitine recorded from Cudi Mt. will be separately studied by the authors.**

Sphingidae

- 50) *Marumba quercus* ([Denis & Schiffermüller],1775) Provinces of Turkey (in codes): 01 05 06 07 10 12 13 19 21 30 33 42 46 47 48 49 56 62 65 73.**

Tineidae

- 51) *Hapsifera luridella* Zeller, 1847** Provinces of Turkey (in codes): 01 05 06 16 21 22 27 31 42 46 56 65 71 73 76. **Material studied:** 1♂ (wingspan: 23 mm). SE Turkey, Şırnak Prov., Cudi Mt. Cevizdüzü 900m, 24 5 2011, by light trap. M. Kemal A.Koçak & A.Güngen leg. (coll. Cesa). This species is new to Şırnak fauna! (**Fig. 58**)

Tortricidae

- 52) *Cnephasia (s.str.) grandis* (Osthelder, 1938)** : see following article in this journal.
53) *Pammene querceti* Gozmany, 1957 : see following article in this journal.



Figs. 55, 56 – *Synaphe uxorialis* (Pyrilidae). Upperside of male. SE Turkey, and tympanal organ before preparation. Following parts of the organ are visible: distal insertion of scoloparium, fornix tympani, tympanum, intersegmental thoraco-abdominal membrane, conjunctiva, paraspina, linea tympani, undulations [cf. Minet & Surlykke (2003)]. SE Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa)

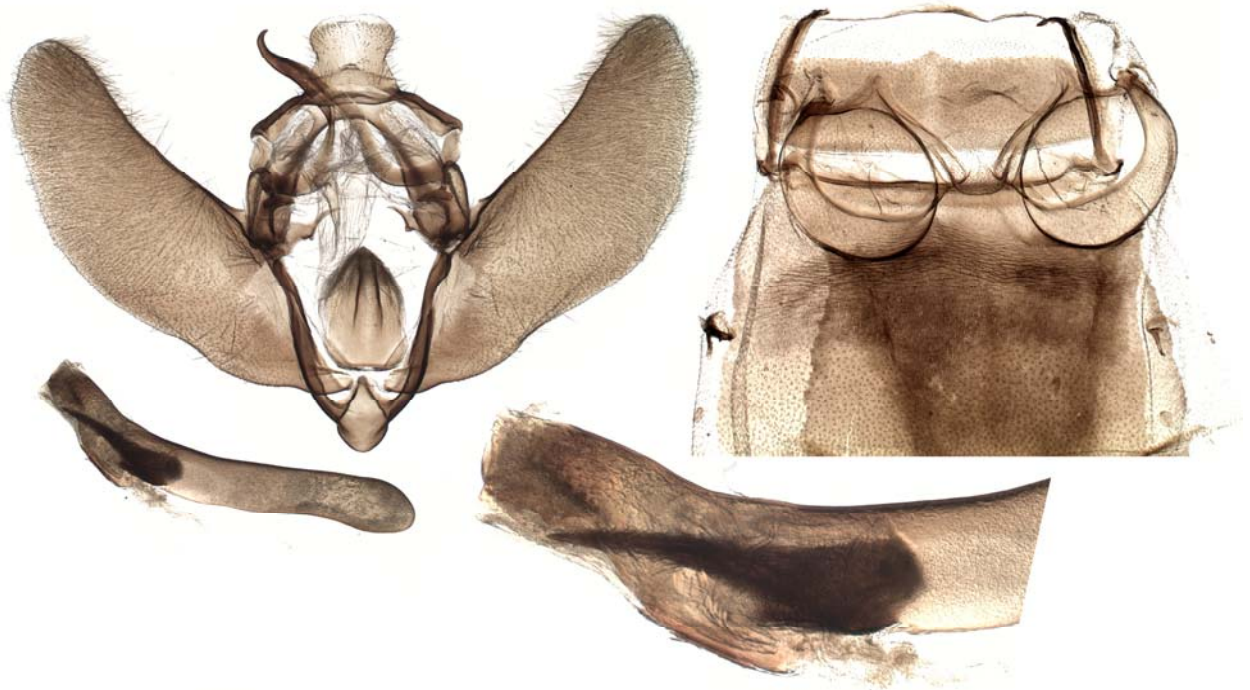


Fig. 57 – *Synaphe uxorialis* (Pyrilidae). Male genitalia, tympanal organ and the basal segment of abdomen (GP2305), Turkey, Şırnak, Cudi Mt., M. Kemal (Cesa)



Fig. 58 – *Hapsifera luridella* (Tineidae). Upperside of male. SE Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa)

Other species of the Pterygota recorded in Cudi Mountain

Below, 32 taxa of 6 orders are given with the distributional information in Turkey.

Odonata

Calopterygidae

- 54)** *Epallage fatime* (Charpentier, 1840) Provinces of Turkey (in codes): 01 03 04 05 07 08 11 12 16 17 20 25 26 30 31 32 33 34 35 39 43 45 46 48 56 61 63 65 72 73 75 77 80

Aeshnidae

- 55)** *Anax immaculifrons* Rambur, 1842 Provinces of Turkey (in codes): 01 02 07 31 33 48 73

Hemiptera

Coreidae

- 56)** *Coreus marginatus* (Linnaeus, 1758) Provinces of Turkey (in codes): 01 04 06 08 09 11 12 13 17 20 22 23 25 31 34 35 36 41 48 49 56 65 73 76. This species is new to Şırnak fauna (**Fig. 59**).

Lygaeidae

- 57)** *Lygaeus equestris* (Linnaeus, 1758) Provinces of Turkey (in codes): 09 13 38 40 44 49 50 56 58 65 73 76 (**Fig. 60**).
58) *Spilostethus pandurus* (Scopoli, 1763) Provinces of Turkey (in codes): 01 03 06 07 09 11 15 16 17 18 20 22 23 26 27 31 33 34 35 38 39 42 43 44 45 48 51 46 64 65 67 73. This species is new to Şırnak fauna!

Rhopalidae

- 59)** *Corizus hyoscyami* (Linnaeus, 1758) Provinces of Turkey (in codes): 13 30 31 38 44 46 50 56 65 73 76



Figs. 59, 60 – Left: *Coreus marginatus* (in copula) (Coreidae); right: *Lygaeus equestris* (Lygaeidae), Cudi Mt., Cevizdüzü, M. Kemal (Cesa)

Miridae

- 60)** *Grypocoris fieberi* ? - Very similar, but the markings orange- coloured instead of yellow (**Fig. 61**).
61) Gen. sp. ? An unidentified mirid from the area (**Fig. 62**).

Pentatomidae

- 62)** *Dolycoris baccarum* (Linnaeus,1758) Provinces of Turkey (in codes): 01 02 03 04 05 06 07 08 09 10 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 30 31 32 33 35 36 37 38 39 41 42 45 46 47 48 49 50 51 52 54 55 56 59 60 63 64 65 67 73 76 (**Fig. 63**).
63) *Graphosoma (s.str.) lineatum* (Linnaeus,1758) Provinces of Turkey (in codes): 01 04 06 07 08 09 10 11 13 16 17 18 19 20 22 25 26 27 31 32 33 34 35 36 37 38 39 43 45 46 48 54 56 60 65 73 76 77 (**Fig. 64**).



Figs. 61, 62 – Left: *Grypocoris fieberi* ? (Miridae) on *Anthemis* sp. (Asteraceae). Right: An unidentified species by the authors (Miridae). Both from Cudi Mt., Cevizdüzü 8 5 2011, M. Kemal (Cesa)

Homoptera

Cicadellidae

- 64)** *Eupteryx melissae* Curtis,1837 Provinces of Turkey (in codes): 06 10 37 57 73



Figs. 63, 64 – Left: *Dolycoris baccarum*, right: *Graphosoma lineatum* (in copula) (Pentatomidae), Cudi Mt., Cevizdüzü, M. Kemal (Cesa)

Diptera

Tabanidae

- 65)** *Chrysops (s.str.) relictus* Meigen, 1820 Provinces of Turkey (in codes): 39 73. This species is new to Şırnak fauna (**Fig. 65**).

Syrphidae

- 66)** *Sphaerophoria rueppelli* Wiedemann, 1830 Provinces of Turkey (in codes): 01 06 07 14 17 18 22 30 31 32 33 35 37 38 39 42 46 48 56 60 65 67 68 71 73 80

Tephritidae

- 67)** *Trupanea stellata* (Fuesslin, 1775) Provinces of Turkey (in codes): 01 06 07 08 10 13 15 20 22 24 25 26 27 30 32 35 36 38 42 44 46 48 58 65 69 73 76. This species is new to Şırnak fauna!



Fig. 65 – *Chrysops relictus* (Tabanidae), Cudi Mt., Cevizdüzü, M. Kemal (Cesa)

Ulidiidae

- 68)** *Otites* sp. Provinces of Turkey (in codes): 72 73

Asilidae

- 69)** *Laphria dizonias* Loew, 1847 Provinces of Turkey (in codes): 01 07 56 70 73. This species was mentioned and illustrated by Koçak & Kemal (2013, Priamus Suppl. 28: 238, fig.8).

Platystomidae

- 70)** *Platystoma dimidiatum* Hendel, 1913 Provinces of Turkey (in codes): 01 07 32 38 42 51 58 65 73. This species is new to Şırnak fauna (**Fig. 66**).



Fig. 66- *Platystoma dimidiatum* (Platystomidae), in copula. Cudi Mt. Cevizdüzü, M. Kemal (Cesa)

Bombyliidae

- 71)** *Bombylella atra* (Scopoli, 1763) Provinces of Turkey (in codes): 13 17 21 32 31 33 35 38 48 51 56 65 70 73. This species was mentioned and illustrated by Koçak & Kemal (2013, Priamus Suppl. 28: 244, fig.20).
- 72)** *Lomatia* sp. This species was mentioned and illustrated by Koçak & Kemal (2013, Priamus Suppl. 28: 254, fig.40).

Coleoptera**Buprestidae**

- 73)** *Anthaxia* sp. Observed in the area, on the blossoms of *Rosa canina* (Rosaceae) (**Fig. 67**).



Fig. 67 – Individuals of *Anthaxia* sp. (Buprestidae) were observed during feeding inside of *Rosa* blossoms (Rosaceae). Cudi Mt., Cevizdüzü, 8 5 2011, M Kemal (Cesa)

Cleridae

- 74) *Trichodes ephippiger* Chevrolat, 1874** Provinces of Turkey (in codes): 01 12 13 21 23 25 27 30 44 46 47 49 56 62 63 65 73. This species is new to Şırnak fauna (**Fig. 68**).

Scarabaeidae

- 75) *Oxythyrea funesta* (Poda, 1761)** Provinces of Turkey (in codes): 06 07 13 14 16 17 35 41 43 48 59 73. This species is new to Şırnak fauna!
- 76) *Oxythyrea cinctella* (Schaum, 1841)** Provinces of Turkey (in codes): 01 03 06 07 09 10 11 12 13 15 16 17 18 19 20 22 24 26 27 31 32 33 35 37 38 39 40 42 43 44 45 48 50 51 54 56 59 60 64 65 67 73 74 76 80 (**Fig. 69**).

Coccinellidae

- 77) *Coccinella (s.str.) septempunctata* Linnaeus, 1758** Provinces of Turkey (in codes): 01 06 07 08 10 13 14 15 16 17 18 20 21 22 23 24 25 27 30 31 32 33 34 35 36 38 42 44 45 46 47 48 49 51 53 56 58 59 65 73 76



Figs. 68, 69 - Left: *Trichodes ephippiger* (Cleridae); right: *Oxythyrea cinctella* (Scarabaeidae) Cudi Mt., Cevizdüzü, M Kemal (Cesa)

Cerambycidae

- 78) *Helladia fatima* (Ganglbauer, 1884) Provinces of Turkey (in codes): 30 47 56 63 72 73**

Hymenoptera**Pamphiliidae**

- 79) *Pseudocephaleia praeteritorum* (Semenov, 1934) Provinces of Turkey (in codes): 73.**
Previously, this species was mentioned and illustrated by Koçak, Kemal & Güngen (2011), Kemal & Koçak (2013).

Scoliidae

- 80) *Megascolia (Regiscolia) maculata* (Drury, 1773) Provinces of Turkey (in codes): 05 06 07 09 10 12 17 20 22 23 30 32 33 34 35 45 46 47 48 56 73**

Cynipidae

- 81) *Andricus cecconii* Kieffer, 1901 Provinces of Turkey (in codes): 07 15 32 56 73**
82) *Andricus curtisii* (Müller, 1870) Provinces of Turkey (in codes): 07 09 20 29 32 56 65 73
83) *Andricus megalucidus* Melika, Stone, Sadeghi & Pujade-Villar, 2004 Provinces of Turkey (in codes): 13 15 32 56 65 73
84) *Andricus moreae* (Graeffe, 1905) Provinces of Turkey (in codes): 12 24 56 65 73
85) *Andricus multiplicatus* Giraud, 1859 Provinces of Turkey (in codes): 13 56 65 73

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Research Article<http://zoobank.org/urn:lsid:zoobank.org:pub:805A93BB-EE3D-4E93-B0AC-20ACCE3F982B>

New and little known *Tortricidae* for the fauna of East Turkey (*Lepidoptera*)

Muhabbet Kemal³ Ahmet Ömer Koçak

Abstract: New and little known *Tortricidae* for the fauna of East Turkey (*Lepidoptera*). *Cesa News* 123: 23-31, 21 figs.

In this paper, eleven species of various subfamilies and tribes of *Tortricidae* are reported here as new to the faunas of Bitlis, Malatya, Muş, Siirt, Van and Şırnak provinces (East Turkey). Among them *Pammene querceti* Gozm is recorded for the first time in Turkey. Most of the adults and all the male genitalia of the species discussed are illustrated. Early stages of *Cnephasia chrysanthæana* from Van Province are also illustrated.

Key words: *Tortricidae*, fauna, Turkey, male genitalia, early stages.

During the excursions of the authors in various provinces of East Turkey, a large number of materials of the family *Tortricidae* were collected by using light trap or by net during day time. Some of these specimens were prepared and identified by the authors. As the first result, eleven species are evaluated faunistically. These species are as follows: *Aethes hartmanniana*, *Cochylis posterana* (*Cochylini*); *Cnephasia grandis*, *C. chrysanthæana*, *C. tianshanica* (*Cnephasiini*); *Endothenia oblongana*, *Ancylis laetana*, *Thiodia laetana*, *Epinotia dalmatana*, *Pelochrista medullana*, *Pammene querceti* (*Olethreutinae*). Faunistically these species are new to various provinces. The detailed information are given below, together with the necessary illustrations of the adults and the genitaliae for identifications. Additionally, early stages of *Cnephasia chrysanthæana* are also illustrated.

Tortricidae

Tortricinae

Cochylini

***Aethes hartmanniana* (Clerck, 1759)**

Material studied: 6♂♀. East Turkey: Bitlis Prov., Tatvan, Nemrut Caldera Ilıkgöl 2360m, 9 6 2007, M. Kemal & A. Koçak leg.; GP2213♂ by M. Kemal (coll. Cesa). For identification, cf. Razowski (1970, 2002, 2009).

This species is new for the fauna of Bitlis! (**Fig. 1**)

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Fig. 1 - *Aethes hartmanniana*. Male genitalia (GP2213). East Turkey: Bitlis Prov., Tatvan Nemrut Caldera Ilıkgöl 2360m, 9 6 2007, M. Kemal (Cesa)

***Cochylis posterana* Zeller, 1847**

This species is widely distributed in East Turkey. In this region, it has been recorded from Hakkari (Yüksekova), and Van (Gevaş, Artos Mt.; Tuşba, Irerini Mt. [GP2196♂, (**Fig. 2**)], so far.

Material studied: 1♂. East Turkey: Muş Province, Varto, Armutkaşı 1710m, 27 5 2015, (GP2312), M Kemal & A. Koçak leg. (coll. Cesa)

This species is new for the fauna of Muş Province!



Fig. 2 – *Cochylis posterana*. Male genitalia (GP2196). East Turkey: Van Prov., Tuşba, Irerini Mt., M. Kemal (Cesa)

Cnephasiini

***Cnephasia* (s.str.) *grandis* (Osthelder, 1938)**

Material studied: 3♂ (wingspan: 15-18 mm). SE Turkey, Şırnak Province, Cudi Mt., Cevizdüzü 890m, 24 5 2011, by light trap, GP2291, 2292 (prep. M.Kemal), M.Kemal, A.Koçak & A.Güngen leg. (coll. Cesa). 1♀ (wingspan: 18 mm). E. Turkey, Van Prov., Çatak 3km NNE 1500m 21 6 2004 by light trap, M. Kemal & A.Koçak leg. (GP2277, prep. M. Kemal), (coll. Cesa) [This specimen was temporarily identified by the authors as *Cnephasia* sp.1 (Kemal & Koçak, 2016, *Priamus* (Suppl.) 41: 107, figs. 78-79)]; . For identification, cf. Kuznetsov (1978).

This species is new for the fauna of Şırnak and Van Provinces! (**Figs. 3, 5**)

***Cnephasia tianshanica* Filipjev, 1934**

Material studied: 1♂ (wingspan: 22mm). East Turkey: Van Prov., Tuşba, Toki Bardakçı 1720m, 25 5 2014 (GP2290), M.Kemal & A.Koçak leg. (coll. Cesa); 1♂ (wingspan: 19 mm) East Turkey: Van Prov., Tuşba, Univ. Campus 1680m, 11 5 2013, M. Kemal & A.Koçak leg. (coll. Cesa); 1♂ (wingspan: 15 mm). South-East Turkey: Diyarbakır Prov., Hazro, Uzunargıt 950m, 16 5 2015 (GP2299), M. Kemal & A.Koçak leg. (coll. Cesa). For identification, cf. Razowski (2002).

This species is new for the fauna of Van and Diyarbakır provinces! (**Figs. 4,6**)

***Cnephasia chrysanthæana* (Duponchel, 1843)**

Material studied: 1♂ (wingspan: 20 mm), 2♀ (wingspan: 23-24 mm). East Turkey: Van Prov., Tuşba, Ağartı 1750m (65Np) (GP2285), ex larva on *Inula hellenium* (Asteraceae), 19 5 2015, M Kemal (Cesa); 1♂ (wingspan: 20 mm). South-East Turkey: Siirt Prov., Şirvan Bacavan 1560m, 29 5 2013, M.Kemal & A.Koçak leg. (coll. Cesa). For identification, cf. Razowski (2002)

This species is new for the fauna of Siirt Province! (**Figs. 18-21**)



Figs. 3, 4 - Left: *Cnephasia grandis*. Male upperside. South-East Turkey, Şırnak Prov., Cudi Mt.; Right: *Cnephasia tianshanica*, male upperside. East Turkey, Van Prov., Tuşba, Toki Bardakçı, M Kemal (Cesa). For their male genitaliae, see below.

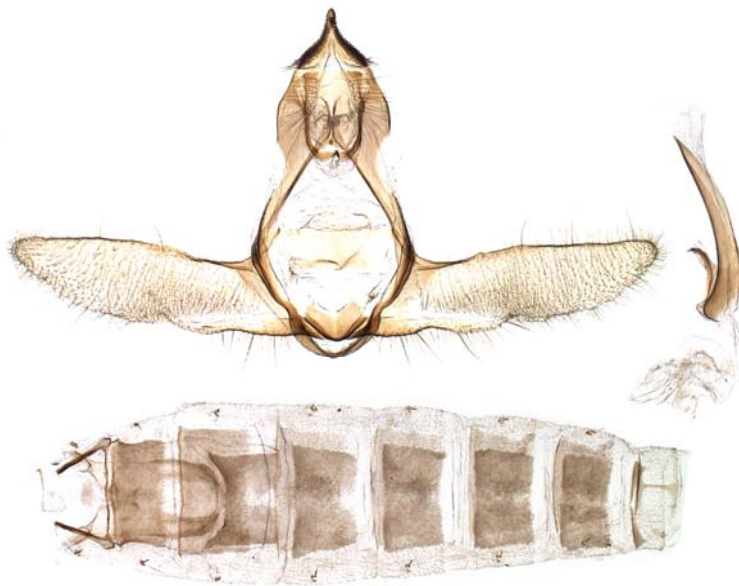


Fig. 5 – *Cnephasia grandis* male genitalia (GP2292) and abdominal segments, South East Turkey, Şırnak Prov., Cudi Mt., M. Kemal (Cesa)

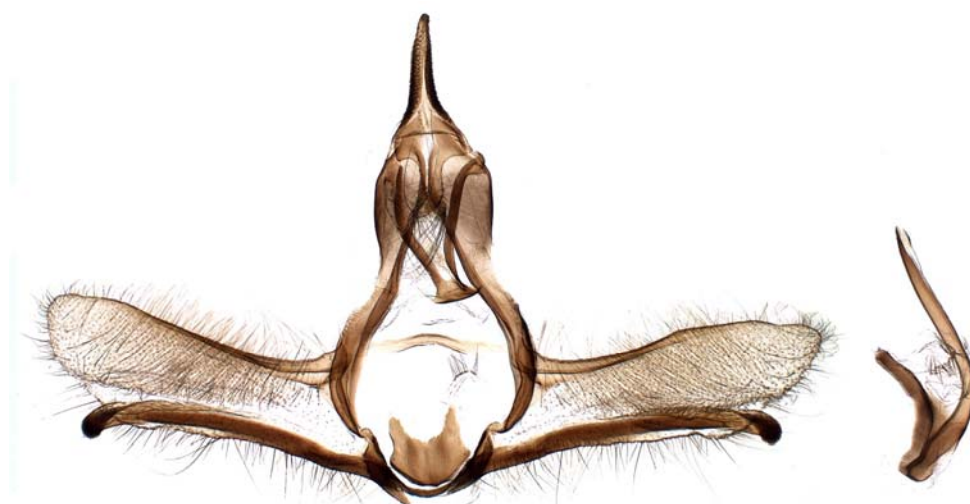


Fig.6 - *Cnephasia tianshanica*, male genitalia (GP2290). East Turkey: Van Prov. Tuşba Toki Bardakçı, M Kemal (Cesa)

Olethreutinae

***Endothenia oblongana* (Haworth,[1811])**

Material studied: 1♂ (wingspan: 15 mm). East Turkey: Muş Province, Varto, Armutkaşı Gölet 1710m, 28 5 2015, (GP2313), M Kemal leg. (coll. Cesa)

This species is new for the fauna of Muş Province! (**Figs. 7, 8**)



Fig. 7 - *Endothenia oblongana*. Upperside of male. East Turkey: Muş Prov., Varto 28 5 2015, M. Kemal (Cesa). For its genitalia, see below.



Fig. 8 - *Endothenia oblongana*. Male genitalia and abdominal segments (GP2313). East Turkey: Muş Prov., Varto 28 5 2015, M. Kemal (Cesa)

Enarmoniini***Ancylis laetana* (Fabricius, 1775)**

Material studied: 1♂. East Turkey: Bitlis Prov., Tatvan Nemrut Caldera İlköl 2360m, 9 6 2007, M. Kemal & A.Koçak leg.; GP2262♂ by M. Kemal (coll. Cesa). For identification of the species, cf. Razowski (2003).

This species is, hitherto known from NW Turkey (Düzce Province), new for the fauna of Bitlis! (**Fig. 9**)



Fig. 9 - *Ancylis laetana*. Male genitalia (GP2262). East Turkey, TR Bitlis Prov., Tatvan, Nemrut Caldera, M Kemal (Cesa)

Eucosmini***Thiodia trochilana* (Frölich, 1828)**

Material studied: 1♂ (wingspan: 14 mm). East Turkey, Malatya Prov., Beydağı NP 1195m (44Lc) (GP2304♂), 20 6 2015, M.Kemal & A.Koçak leg. (coll. Cesa). For identification of the species, cf. Razowski (2003).

Previously, this species was known from Amasya and Bursa (NW Turkey). The present record is new for the fauna of Malatya Province! (**Figs. 10, 11**)



Fig. 10 - *Thiodia trochilana*, male upperside. East Turkey: Malatya Prov., Beydağı NP 1195m, 20 6 2015, M. Kemal (Cesa). For its genitalia see below.

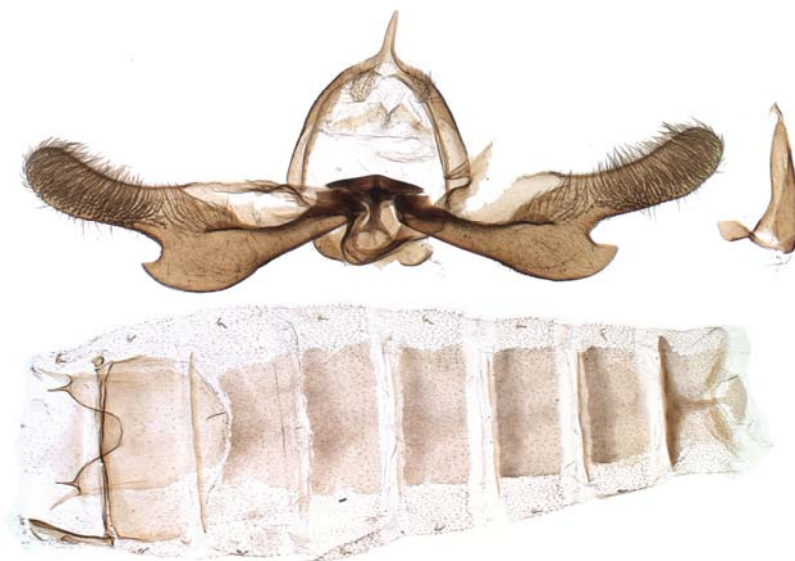


Fig. 11 - *Thiodia trochilana*. Male genitalia and abdominal segments (GP2304). East Turkey: Malatya Prov., Beydağı NP, M. Kemal (Cesa)

***Epinotia dalmatana* (Rebel, 1891)**

Material studied: 1♂ (wingspan: 19 mm). East Turkey, Malatya Prov., Beydağı NP 1190m (44Lc) (GP2302♂), 19 6 2015, M.Kemal & A.Koçak leg. (coll. Cesa). 14♂♀. East Turkey: Bitlis Prov., Adilcevaz, Aygırgölü 1970m (13Ab), 14-16.7.2015, M.Kemal & A.Koçak leg. (coll. Cesa). For identification of the species, cf. Razowski (2003).

This species is new for the fauna of Malatya and Bitlis provinces! (**Figs. 12, 13**)



Fig. 12 - *Epinotia dalmatana*. Upperside of male. East Turkey, Malatya Prov., Beydağı, M. Kemal (Cesa). For its genitalia, see below.



Fig. 13 - *Epinotia dalmatana*. Male genitalia and abdominal segments. (GP2302). East Turkey, Malatya Prov., Beydağı, M. Kemal (Cesa)

***Pelochrista medullana* (Staudinger, 1880)**

Material studied: 1♂ (wingspan: 21 mm). East Turkey: Van Prov., Gevaş, Artos Mt. 1980m, 14 7 2012 (GP2288), M. Kemal & A.Koçak leg. (coll. Cesa). For identification of the species, cf. Razowski (2003) (Figs. 14, 16)

Grapholitini

Grapholitina

***Pammene querceti* Gozmany, 1957**

Material studied: 1♂ (wingspan: 13 mm). SE Turkey, Şırnak Province, Cudi Mt., Cevizdüzü 890m, 24 5 2011, by light trap, M.Kemal, A.Koçak & A.Güngen leg., GP2293 (prep. M.Kemal) (coll. Cesa). For identification, cf. Razowski (2003).

Range: Austria, Hungary, Czech Republic (Moravia), Slovakia, France, Italy, former Yugoslavia (Razowski, 2003).

This species is new for the fauna of Turkey! (Figs. 15, 17)



Figs. 14, 15 – Left: *Pelochrista medullana*, East Turkey: Van Prov., Gevaş Artos; Right: *Pammene querceti*, South East Turkey: Şırnak Prov., Cudi Mt., M Kemal (Cesa). for their male genitaliae, see below.

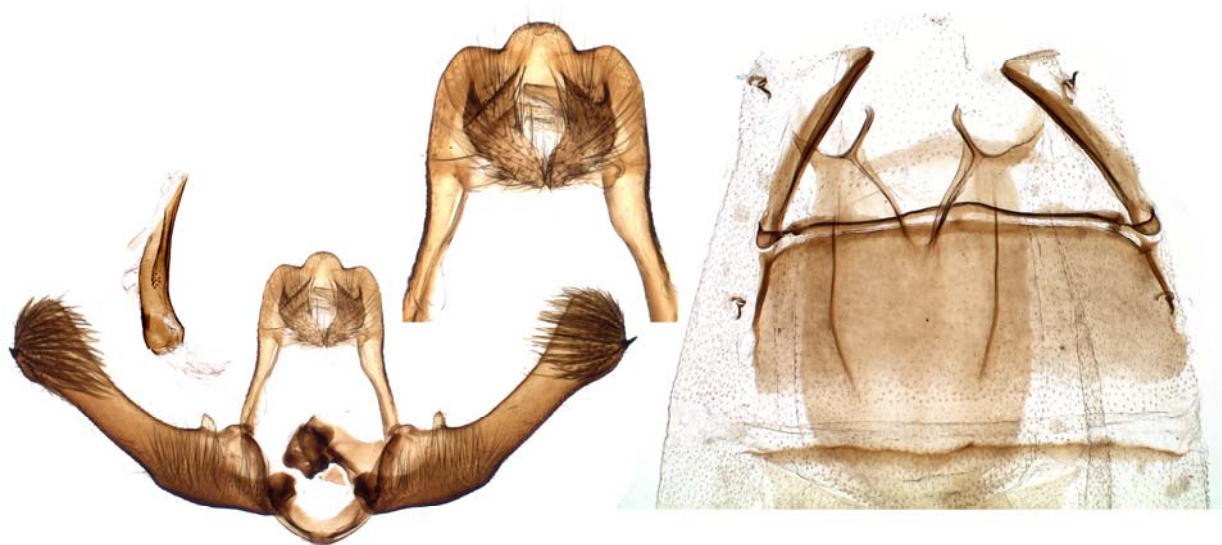


Fig. 16 - *Pelochrista medullana*. Male genitalia and basal segments of abdomen (GP2288♂). East Turkey, Van Prov., Gevaş Artos Mt, M Kemal (Cesa)

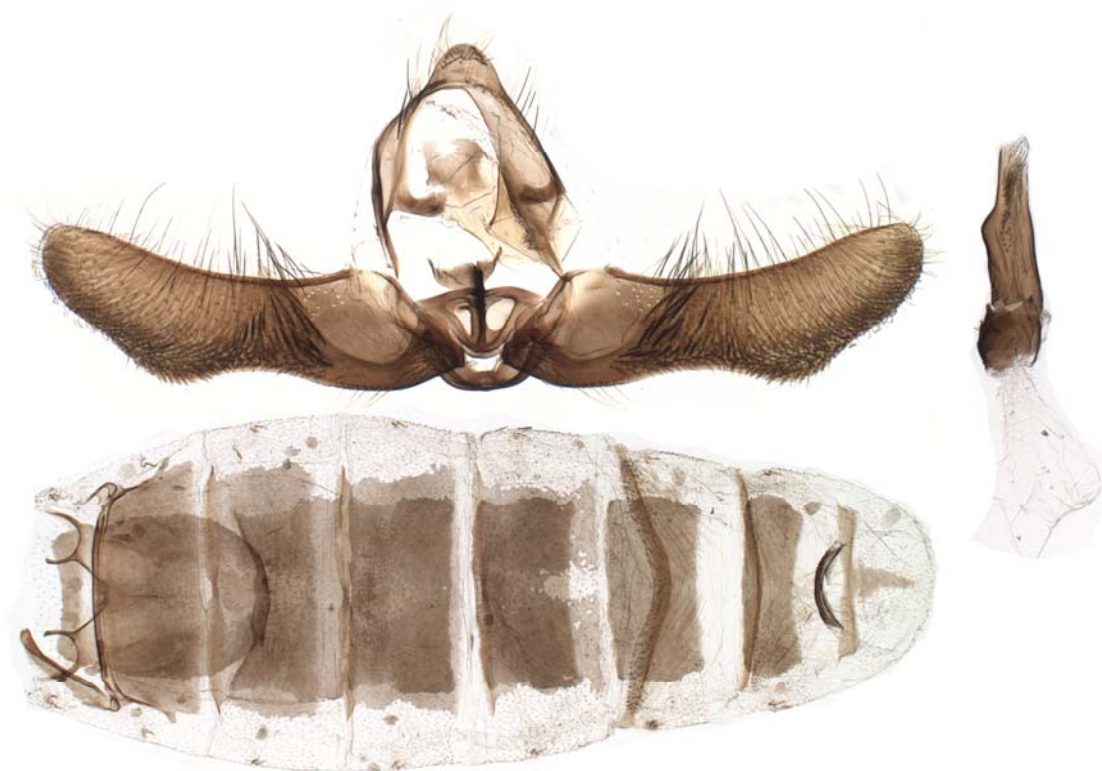


Fig. 17 - *Pammene querceti*. Male genitalia and abdominal segments (GP2293♂). South East Turkey: Şırnak Prov., Cudi Mt., M Kemal (Cesa)



Figs. 18, 19 - Left: Larva inside the rolled leaf of *Inula hellenium*; right: Full- grown larva of *Cnephasia chrysanthæana*, M. Kemal (Cesa).



Figs. 20, 21 - Left: Pupa inside of a weak cocoon; right: Emerged adult of *Cnephasia chrysanthæana*, M. Kemal (Cesa).

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Research Article

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New records of *Dolichopodidae* (Diptera) from the Tatarstan Republic

Mariya A. Chursina⁴ Oleg P. Negrobov

Abstract: New records of Dolichopodidae (Diptera) from the Tatarstan Republic. *Cesa News* 123: 32-38.

New data on *Dolichopodidae* family from the Tatarstan Republic are presented. 11 species are recorded from Tatarstan Republic for the first time.

Key words: *Diptera*, *Dolichopodidae*, Russia, fauna, Tatarstan Republic, new records.

Introduction

Dolichopodidae (Diptera) is one of the most numerous and widespread family in various biogeographical areas in the Palearctic region. Currently, approximately 7500 species from 250 genera are known from the world (Grichanov, 2003–2014). *Dolichopodidae* species differs from other Diptera by the reduced venation, hemispherical head, well-differentiated thorax chaetotaxy, long legs and male terminalia rotated and lateroflexed forward below the preceding abdominal segments (Grichanov, Brooks, 2009).

The literature data on the fauna of *Dolichopodidae* family of the Tatarstan Republic are not numerous. Negrobov et al. (2010) reviewed the *Dolichopodidae* species of the Volga-Kama State Natural Biosphere National Park and published the list of 23 species from 13 genera. The additional data on the fauna of *Dolichopodidae* family from the Tatarstan Republic were published by Chursina et al. in 2014. This review included 11 species new for the Tatarstan Republic and two species new for the European part of Russia.

Material and methods

The material for this paper were collected in 2015, from 15 July to 15 August, by M. A. Chursina on the territory of Zhelenodolsk district including the territory of Volga-Kama biosphere reserve and environs of village Vasilyevo. Collections were made by individual hand net, and then specimens were installed on entomological pins. The following keys were used: Negrobov and Stackelber (1969), Grichanov (2009), Negrobov et al. (2012 a, b).

Different types of Diptera habitats were investigated, including open and shaded areas of the coast of reservoirs, sphagnum swamp, greatly moistened grasslands, areas in deciduous and coniferous forests without direct access to water, and anthropogenic disturbances areas.

Results

This paper presents new records for 33 Tatarstan dolichopodid species belonging to 13 genera, 11 species of which are recorded from the Republic for the first time: *Argyra grata* Loew, *A. magnicornis* (Zetterstedt), *Campsicnemus paradoxus* (Wahlberg), *Chrysotus cilipes* Meigen, *Dolichopus apicalis* Zetterstedt, *D. arbustorum* Stannius, *D. ringdahli* Stackelberg, *Hercostomus nanus* (Macquart), *Hydrophorus pectinatus* Gerstäcker, *Sciapus albifrons* (Meigen), *Syntormon pumilus* (Meigen). *D. ringdahli* and *C. paradoxus* are recorded from European part of Russia for the first time.

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A revised checklist and material examined***Argyra* Macquart, 1834*****Argyra grata* Loew, 1857**

Loew, 1857: Progr. Realsch. Meseritz 1857: 39.

Material: 2 ♀♀, village Vasilyevo, bank of the stream, deciduous forest, 28.VII.2015.

Distribution. Russia: Leningrad and Voronezh regions (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Argyra magnicornis* (Zetterstedt, 1838)**

Zetterstedt, 1838: Ins. lappon.: 712.

Material: 1 ♂, village Vasilyevo, wasteland, 29.VII.2015.

Distribution. Russia: Murmansk, Leningrad and Voronezh regions, Krasnodar Territory (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

Campsicnemus* Haliday, 1851**Campsicnemus curvipes* (Fallén, 1823)**

Fallén, 1823: Monogr. Dolichopodid. Svec.: 20.

Material: 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015.

Distribution. Russia: Moscow, Leningrad, Krasnodar Territory, Voronezh, Ryazan, Kursk, Kaluga and Perm regions, Krasnoyarsk Territory, Siberia, Adygea, North Caucasus (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Campsicnemus lumbatus* Loew, 1857**

Loew, 1857: Programm K. Realschule Meseritz 1857: 28.

Material: 1 ♂, 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015; 1 ♀, village Vasilyevo, bank of stream, deciduous forest; 1 ♂, bank of bay Volzhsky, mixed forest, 10.VIII.2015.

Distribution. Russia: Leningrad, Voronezh, Orenburg, Ryazan and Moscow regions, Krasnoyarsk Territory, North Caucasus (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Campsicnemus paradoxus* (Wahlberg, 1844)**

Wahlberg, 1844: Öfvers. Vetensk.-Akad. Förhandl. (Stockholm) 1: 109.

Material: 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015.

Distribution. Russia: Yakutia (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Campsicnemus scambus* (Fallén, 1823)**

Fallén, 1823: Dipt. Svec. 2.

Material: 3 ♂♂, 12 ♀♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015, 11.VIII.2015.

Distribution. Russia: Moscow, Leningrad, Voronezh, Murmansk, Ryazan, Vologda, Saratov and Novgorod regions, Krasnoyarsk Territory, Khabarovsk Territory, North Caucasus, Primorsky Krai, Yakutia, Altai, Khanty-Mansi A.O. (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

Chrysotus* Meigen, 1824**Chrysotus cilipes* Meigen, 1824**

Meigen, 1824: Syst. Besch. 4: 41.

Material: 2 ♂♂, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 11.VIII.2015; 1 ♀, village Vasilyevo, bank of the lake, pine forest, 06.VIII.2015.

Distribution. Russia: Moscow, Novgorod, Leningrad, Irkutsk, Kaluga and Amur regions, Krasnodar Territory, Krasnoyarsk Territory, North Caucasus, Adygea, Altai, Sayan, Karelia, Buryatia, Baikal, Yakutia, Khabarovsk Territory, Primorye (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Chrysotus neglectus* (Wiedemann, 1817)**

Wiedemann, 1817: Zool. Mag. (Wied.) 1(1): 74.

Material: 2 ♂♂, village Vasilyevo, bank of the river Volga, 30.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Voronezh, Ryazan, Amur and Magadan regions, Krasnodar Territory, Kamchatka, North Caucasus, Yakutia, Adygea, Altai, Sayan, Krasnoyarsk Territory, Volga river basin, Tatarstan Republic (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

Dolichopus Latreille, 1796

***Dolichopus acuticornis* Wiedemann, 1817**

Wiedemann, 1817: Zool. Mag. (Wied.), 1(1): 74.

Material: 1 ♂, 5 ♀♀, village Vasilyevo, bank of the river Sumka, deciduous forest, 27.VII.2015; 4 ♀♀, village Vasilyevo, bank of bay Volzhsky, mixed forest, 29.VII.2015; 1 ♂, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Moscow, Leningrad, Voronezh and Ryazan regions (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013-2014 (Chursina et al., 2014).

***Dolichopus apicalis* Zetterstedt, 1849**

Zetterstedt, 1849: Dipt. Scand. 8: 3084.

Material: 1 ♂, village Vasilyevo, bank of stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Novgorod, Voronezh, Leningrad, Pskov, Saratov, Vologda and Kursk regions, Buryatia, Kamchatka (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Dolichopus arbustorum* Stannius, 1831**

Stannius, 1831: Isis (Oken) 1831: 125.

Material: 1 ♂, 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015; 1 ♀, village Vasilyevo, bank of bay Volzhsky, mixed forest, 10.VIII.2015.

Distribution. Russia: North Caucasus, Voronezh, Saratov and Ryazan regions (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Dolichopus claviger* Stannius, 1831**

Stannius, 1831: Isis (Oken) 1831: 56.

Material: 1 ♂, 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 28.VII.2015.

Distribution. Russia: Moscow, Novgorod, Leningrad, Arkhangelsk, Lipetsk, Voronezh, Perm, Ryazan, Magadan and Vologda regions, Altai, Tatarstan Republic, Krasnoyarsk Territory, Siberia, North Caucasus, Crimea, Krasnodar Territory, Yakutia (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

***Dolichopus latilimbatus* Macquart, 1827**

Macquart, 1827: Ins. Dipt. Nord France, 3: 65.

Material: 3 ♂♂, 2 ♀♀, village Vasilyevo, bank of the river Volga, 12.VIII.2015; 3 ♂♂, village Vasilyevo, bank of bay Volzhsky, mixed forest, 29.VII.2015; 2 ♂♂, 5 ♀♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 11.VIII.2015; 1 ♂, village Vasilyevo, swamp, 26.VII.2015.

Distribution. Russia: Moscow, Voronezh, Ryazan and Kursk regions, Yakutia, North Caucasus, Krasnodar Territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

***Dolichopus lepidus* Staeger, 1842**

Staeger, 1842: Naturhist. Tidsskr., 4: 36.

Material: 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Voronezh, Magadan and Vologda regions, North Caucasus, Khanty-Mansi A.O., Khabarovsk Territory, Krasnoyarsk Territory, Adygea, Sayan (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

***Dolichopus longicornis* Stannius, 1831**

Stannius, 1831: Isis (Oken) 1831: 53.

Material: 1 ♂, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Perm, Voronezh, Irkutsk, Vologda, Ryazan, Kursk, Kaluga regions, Far East, North Caucasus, Primorye, Sayan, Tatarstan Republic, Kamchatka, Yakutia, Altai (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

***Dolichopus longitarsis* Stannius, 1831**

Stannius, 1831: Isis (Oken) 1831: 124.

Material: 2 ♂♂, 6 ♀♀, village Vasilyevo, wasteland, puddle after rain, 29.VII.2015; 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Siberia, Leningrad, Voronezh, Vologda and Saratov regions, Yakutia, Krasnoyarsk Territory, Altai (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Dolichopus nigricornis* Meigen, 1824**

Meigen, 1824: Syst. Besch., 4: 82.

Material: 2 ♀, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Perm, Irkutsk, Voronezh, Vologda, Ryazan, Kursk and Kaluga regions, Far East, Kamchatka, North Caucasus, Primorye, Sayan, Yakutia, Altai, Tatarstan republic (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

***Dolichopus pennatus* Meigen, 1824**

Meigen, 1824. Syst. Berchr. 4: 90.

Material: 2 ♀♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Pskov, Leningrad, Voronezh, Magadan, Vologda and Irkutsk regions, North Caucasus, Yakutia, Altai, Krasnoyarsk Territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Dolichopus plumipes* Scopoli, 1763**

Scopoli, 1763. Ent. Carniolica: 334.

Material: 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 28.VII.2015; 2 ♀♀, village Vasilyevo, wasteland, swamp, 29.VII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Voronezh, Ryazan, Vologda, Kursk, Irkutsk regions, Ural, Far East, Siberia, North Caucasus, Primorye, Yakutia, Kamchatka, Khabarovsk Territory, Altai, Krasnoyarsk Territory, Adygea, Khanty-Mansi A.O., Tatarstan republic, Krasnodar territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

***Dolichopus ringdahli* Stackelberg, 1930**

Stackelberg, 1930. Annu. Mus. zool. Acad. Sci. URSS 31: 160.

Material: 20 ♂♂, 8 ♀♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015, 11.VIII.2015.

Distribution. Russia: Siberia, Yakutia, Far East, Sayan, Baikal, Primorye, Krasnodar Territory (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Dolichopus unguatus* Linnaeus, 1758**

Linnaeus, 1758. Syst. Nat. Ed. 10, 1: 598.

Material: 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015.

Distribution. Russia: Altai, Moscow, Novgorod, Leningrad, Voronezh, Ryazan, Vologda, Kursk and Irkutsk regions, Siberia, North Caucasus, Mordovia, Krasnoyarsk Territory, Khanty-Mansi A.O. (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

Gymnopternus* Loew, 1857**Gymnopternus aerosus* (Fallen, 1823)**

Fallen, 1823. Monogr. Dolichopod. Svec.: 15.

Material: 4 ♂♂, 4 ♀♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 11.VIII.2015; 1 ♂, 2 ♀♀, village Vasilyevo, bank of the stream, deciduous forest, 28.VII. 2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Voronezh, Ryazan, Arkhangelsk, Amur, Vologda, Saratov and Irkutsk regions, Primorye, North Caucasus, Mordovia, Baikal, Sakhalin, Krasnoyarsk Territory, Sayan (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

***Gymnopternus celer* (Meigen, 1824)**

Meigen, 1824: Syst. Besch. 4: 84.

Material: 1 ♂, village Vasilyevo, bank of bay Volzhsky, mixed forest, 29.VII.2015.

Distribution. Russia: Moscow, Novgorod, Voronezh and Ryazan regions, Siberia, North Caucasus, Altai, Mordovia, Krasnoyarsk Territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

***Gymnopternus metallicus* (Stannius, 1831)**

Stannius, 1831: Isis (Oken) 1831: 262.

Material: 1 ♂, 1 ♀, village Vasilyevo, bank of the stream, deciduous forest, 28.VII.2015.

Distribution. Russia: Moscow, Leningrad, Voronezh, Ryazan, Tambov and Saratov regions, Mordovia, Tatarstan Republic (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

Hercostomus* Loew, 1857.**Hercostomus nanus* (Macquart, 1827)**

Macquart, 1827: Ins. Dipt. Nord France 3: 66.

Material: 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 11.VIII.2015.

Distribution. Russia: Pskov region (Grichanov, 1998).

Note. Species is recorded from the region for the first time.

***Hercostomus nigriplantis* (Stannius, 1831)**

Stannius, 1831: Isis (Oken) 1831: 250.

Material: 3 ♂♂, 5 ♀♀, village Vasilyevo, bank of bay Volzhsky, mixed forest, 10.VIII.2015.

Distribution. Russia: Leningrad, Voronezh, Ryazan and Kursk regions, North Caucasus, Crimea, Kuban, Mordovia, Adygea, Tatarstan Republic (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic by Negrobov et al. (2010).

Hydrophorus* Fallen, 1823**Hydrophorus pectinatus* Gerstäcker, 1864**

Gerstäcker, 1864: Stettin ent. Ztg. 25: 41.

Material: 1 ♀, village Vasilyevo, bank of the river Volga, sand beach, 12.VIII.2015.

Distribution. Russia: Siberia, Leningrad, Tyumen regions, North Caucasus, Nenets A.A. (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Poecilobothrus* Mik, 1878**

***Poecilobothrus chrysozygos* (Wiedemann, 1817)**

Wiedemann, 1817. Zool. Mag. 1 (1): 72.

Material: 1 ♂, 1 ♀, village Vasilyevo, wasteland, puddle after rain, 29.VII.2015, 02.08.2015; 1 ♀, village Vasilyevo, bank of the lake, piny forest, 06.VIII.2015; 1 ♂, 2 ♀, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015; 1 ♂, village Vasilyevo, swamp, 26.VII.2015.

Distribution. Russia: river Volga basin, Moscow, Voronezh, Ryazan and Saratov regions, North Caucasus, Mordovia, Khabarovsk Territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Rhaphium* Meigen, 1803**

***Rhaphium caliginosum* Meigen, 1824**

Meigen, 1824: Syst. Besch., 4: 29.

Material: 1 ♂, village Vasilyevo, bank of the stream, deciduous forest, 30.VII.2015; 2 ♂♂, village Vasilyevo, swamp, 12.VIII.15; 1 ♂, village Vasilyevo, bank of the lake, piny forest, 06.VIII.2015; 1 ♂, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 11.VIII.2015.

Distribution. Russia: Moscow, Murmansk, Leningrad, Voronezh, Vologda and Kursk regions, North Caucasus, Baikal, Primorsky Kray, Krasnoyarsk Territory, Krasnodar Territory, Adygea (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2013 (Chursina et al., 2014).

***Sciapus* Zeller, 1842**

***Sciapus albifrons* (Meigen, 1830)**

Meigen, 1830: Syst. Besch. 6: 360.

Material: 1 ♂, 3 ♀♀, village Vasilyevo, bank of bay Volzhsky, mixed forest, 29.VII.2015; 2 ♀♀, village Vasilyevo, bank of the lake, piny forest, 08.VIII.2015; 1 ♀, village Vasilyevo, garden, 03.VIII.2015.

Distribution. Russia: Moscow, Leningrad, Voronezh, Ryazan and Novosibirsk regions.

Note. Species is recorded from the region for the first time.

***Sympycnus* Loew, 1857**

***Sympycnus pulicarius* (Fallén, 1823)**

Fallén, 1823. Monogr. Dolichopod. Svec.: 20.

Material: 1 ♂, 1 ♀, village Vasilyevo, piny forest, 06.VIII.2015.

Distribution. Russia: Moscow, Murmansk, Novgorod, Leningrad, Ryazan, Voronezh and Vologda regions, Krasnoyarsk Territory (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

***Syntormon* Loew, 1857**

***Syntormon pumilus* (Meigen, 1824)**

Meigen, 1824: Syst. Besch. 4: 53.

Material: 1 ♂, village Vasilyevo, wasteland, puddle after rain, 29.VII.2015; 1 ♂, village Vasilyevo, bank of bay Volzhsky, mixed forest, 10.VIII.2015.

Distribution. Russia: Moscow, Murmansk, Ryazan, Vologda, Astrakhan, Novosibirsk, Kaluga and Kursk regions, North Caucasus, Krasnodar Territory, Kabardino-Balkaria, Yakutia (Negrobov et al., 2013).

Note. Species is recorded from the region for the first time.

***Xanthochlorus* Loew, 1857**

***Xanthochlorus tenellus* (Wiedemann, 1817)**

Wiedemann, 1817. Zool. Mag. 1 (1): 75.

Material: 1 ♂, village Vasilyevo, birch-wood, 01.VIII.2015; 1 ♂, village Vasilyevo, bank of the lake, piny forest, 06.VIII.2015; 1 ♂, village Vasilyevo, mixed forest, 10.VIII.2015; 2 ♂♂, 1 ♀, Raifsky sector of Volga-Kama biosphere reserve, Ilyinskaya ravine, sphagnum swamp, 27.VII.2015; 1 ♂, 1 ♀, village Vasilyevo, mixed forest, 29.VII.2015.

Distribution. Russia: Moscow, Leningrad, Voronezh, Murmansk and Ryazan regions, North Caucasus, Adygea, Tatarstan Republic (Negrobov et al., 2013).

Note. The species was recorded in the Tatarstan Republic in 2014 (Chursina et al., 2014).

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⁵ <http://www.cesa-tr.org/Pri.htm>

⁶ <http://www.cesa-tr.org/Miscell.htm>

⁷ <http://www.cesa-tr.org/Memoirs.htm>

⁸ <http://www.cesa-tr.org/CDF.htm>

⁹ <http://www.cesa-tr.org/Icon.htm>

¹⁰ <http://www.cesa-tr.org/CPAL.htm>

¹¹ <http://www.cesa-tr.org/Cesanews.htm>

¹² <http://www.cesa-tr.org/Cesabooks.htm>